

Numbers and Operations  
Lesson 3: Irrational Numbers  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

Key Concepts:

Irrational numbers are numbers that cannot be written as \_\_\_\_\_.

Any decimal that does not \_\_\_\_\_ and does not \_\_\_\_\_  
is irrational.

You can never find the \_\_\_\_\_ of irrational numbers.

You will get an irrational number when you take the \_\_\_\_\_  
of any number that is not a \_\_\_\_\_.

Example 1: Decide whether the following are rational or irrational. How do you know?

a. .15155155515555...                      b.  $\sqrt{27}$

Example 2: For which of the following can you not find the exact value? How do you know?

a. Area of a circle

b. Perimeter of a triangle

c. Volume of a cylinder

Example 3: A square has an area of  $84 \text{ cm}^2$ . Is the length of a side rational or irrational?

Example 4: If the area of a circle is about  $265 \text{ in}^2$ , between which two whole numbers is the length of the radius?

Example 5: Come up with 5 examples of numbers that are rational and irrational.